

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-5 (cancelled)

Claim 6 (original). A light emitting diode of a double hetero-junction type in which a light-emitting layer made of a GaAlInP material is interposed between a p-type cladding layer and an n-type cladding layer, wherein:

a p-side electrode is formed on a p-type cladding layer-side surface having an area of 0.15 mm² or more; and

any point present in a region not containing the p-side electrode of said p-type cladding layer-side surface is within a distance of (Ld x 2) from some point on an edge of said p-side electrode, where Ld is a distance from a position at which an optical power is maximum, to a position at which the optical power attenuates by 90%.

Claim 7 (original). A light emitting diode according to claim 6, wherein said

p-side electrode comprises a plurality of branch electrodes and a connection electrode connecting said branch electrodes to each other electrically.

Claim 8 (original). A light emitting diode according to claim 7, wherein an interval between said branch electrodes is approximately Ld.

Claim 9 (original). A light emitting diode according to claim 8, wherein said surface on which the p-side electrode is formed has two opposed parallel straight sides; and said branch electrodes are each strip-shaped, and arranged parallel with said two sides-and with each other.

Claim 10 (original). A light emitting diode according to claim 9, wherein an interval between an outermost branch electrode and the side of said surface opposed to this branch electrode is approximately Ld/2.

Claim 11 (original). A light emitting diode according to claim 6, comprising a current diffusion layer made of a AlGaInP material and disposed between said p-type cladding layer and said p-side electrode.

Claim 12 (original). A light emitting diode according to claim 6, comprising a barrier layer between said light-emitting layer and said p-type cladding layer, said barrier layer having a band gap intermediate between band gaps of said light-emitting layer and p-type cladding layer.

Claim 13 (original). A light emitting diode according to claim 12, further comprising a barrier layer between said light-emitting layer and said n-type cladding layer, said barrier layer having a band gap intermediate between band gaps of said light-emitting layer and said n-type cladding layer.

Claim 14 (original). A light emitting diode of a double hetero-junction type in which a light-emitting layer made of a GaAlInP material is interposed between a p-type cladding layer and an n-type cladding layer, comprising:

a current blocking layer formed on a p-type cladding layer-side surface having an area of 0.15 mm² or more; and

a p-side electrode formed at a position above said current blocking layer and opposed to said current blocking layer,

wherein any point present in a region not containing the current blocking layer of said p-type cladding layer-side surface is within a distance of (Ld x 2) from some point on an edge of said current blocking layer, where Ld is a distance from a position at which an optical power is maximum, to a position at which the optical power attenuates by 90%.

Claim 15 (original). A light emitting diode according to claim 14, wherein said current blocking layer comprises a plurality of blocking branch portions and a connection portion connecting said blocking branch portions to each other electrically, and an interval between adjacent blocking branch portions is approximately Ld.

Claim 16 (original). A light emitting diode according to claim 15, wherein the surface on which said current blocking layer is formed has two opposed parallel straight sides; and

said blocking branch portions are each strip-shaped and arranged parallel with said two sides and with each other.

Claim 17 (original). A light emitting diode according to claim 16, wherein an interval between an outermost blocking branch portion and the side of said surface opposed to this outermost blocking branch portion is approximately Ld/2.

Claim 18 (original). A light emitting diode according to claim 14, comprising a current diffusion layer made of an AlGaInP material and disposed between said p-type cladding layer and said p-side electrode.

Claim 19 (original). A light emitting diode according to claim 14, comprising a barrier layer between said light-emitting layer and said p-type cladding layer, said barrier layer having a band gap intermediate between band gaps of said light-emitting layer and p-type cladding layer.

Claim 20 (original). A light emitting diode according to claim 19, further comprising a barrier layer between said light-emitting layer and said n-type cladding layer, said barrier layer having a band gap intermediate between band gaps of said light-emitting layer and said n-type cladding layer.

Claim 21 (original). A light emitting diode of a double hetero-junction type in which a light-emitting layer made of a GaAlInP material is interposed between a p-type cladding layer and an n-type cladding layer, wherein:

a p-side electrode is formed on a p-type cladding layer-side surface, said p-side electrode consisting of a plurality of mutually connected constituent parts; and

any point present in a region not containing the p-side electrode of said p-type cladding layer-side surface is within a distance of $(Ld \times 2)$ from some point on an edge of said p-side electrode, where Ld is a distance from a position at which an optical power is maximum, to a position at which the optical power attenuates by 90%.

Claim 22 (original). A light emitting diode according to claim 21, wherein said p-type cladding layer-side surface is a surface of a current diffusion layer.

Claim 23 (original). A light emitting diode according to claim 22, wherein the current blocking layer having a shape corresponding to that of said p-side electrode is formed inside said current diffusion layer in a position opposed to said p-side electrode.